

Government to consider whether, in view of the number of favourable stations existing in the neighbourhood of Vienna, they could encourage and assist solar observations.

An important resolution concerning the organisation of meteorological stations was moved by Dr. W. N. Shaw (London), and unanimously carried, as follows:—

Consideration of the distribution of meteorological stations over the globe shows that stations in the far north and on islands in the various oceans are of special importance; the International Association of Academies desires therefore to express the hope that the Governments concerned will take any necessary steps for securing the continuance of observations where they already exist; for the modification of their form, if necessary, to bring them into conformity with meteorological usage; for establishing stations where they do not yet exist; and for placing the observations at the service of science by suitable publication. As regards the far north, observations are desired from two or three stations, at least, in the north of Siberia and of the Continent of America respectively, and as regards the islands, the following list is suggested:—Greenland, Færøe Islands, Azores, Madeira, Canaries, Cape Verde, Ascension, St. Helena, Falklands, Fernando Naronha, Staten Island, Fernando Po, West Indies, Bermudas, Sandwich Islands, Carolines, Guam, Bismarck Archipelago, Samoa, Fiji, New Caledonia, Tahiti, Java, Borneo, Seychelles, Maurice, Réunion, Madagascar, Zanzibar, Socotra, Chagos Archipelago, Christmas Island, Karmaluki.

The Association reassembled in the afternoon, for a sitting which it was ultimately found necessary to adjourn until Sunday morning, June 2. The report on the publication of the works of Leibniz was received; already a catalogue of the Leibniz MSS. had been prepared and printed. The Association expressed the hope that the three academies which had prepared this catalogue (the Paris Academies of Science and of Moral and Political Science, and the Berlin Academy) would proceed to undertake and carry through a scientifically complete edition of the works of Leibniz, and that the necessary Government aid would be forthcoming.

The proceedings of the two sections were then approved in detail by the general assembly, including reports from the letters section on the international loan of MSS., on the Greek Thesaurus, and on the *Corpus Medicorum Antiquorum*.

It was decided to accept the invitation to hold the next meeting in Rome (1910), probably at Easter.

There were, of course, many hospitable entertainments. The Vienna Academy invited the delegates to the annual meeting on May 28; the president entertained them at dinner on May 29; there were delightful expeditions to the Semmering on June 1, and to the Schloss Kreuzenstein on June 2, which the Graf von Wilczek (the organiser of the Polar expedition which discovered Franz Josef land) has rebuilt on the old model, and filled with all the beautiful old pictures and pieces of furniture which can be collected. Finally, the delegates had the honour of being received by the Emperor in person on the evening of June 2, and of being present at the Opera on his invitation.

The success of the whole meeting was attested by the cordial words spoken at its conclusion by MM. Darboux (Paris), Schuster (London), and Kikuchi (Tokio), who joined in congratulating Prof. Suess and the Vienna Academy on the able manner in which the duties of the "leading academy" had been discharged during the last three years.

H. H. TURNER.

THE LEICESTER MEETING OF THE BRITISH ASSOCIATION.

LEICESTER people evidently intend doing their utmost to make the first visit of the British Association to their town as successful as it will be welcome, and the meeting itself promises to be both largely and influentially attended. Many foreign visitors will be entertained as guests by the local committee, the list already including representatives of science from the Cape, Canada, the United States, France, Germany, Austria, Russia, Switzerland, Holland, Prussia, Italy, Norway, Denmark, Sweden, and Greece.

The opening meeting is to be held in the Royal Opera House on Wednesday, July 31, at 8.30 p.m., when Prof. Ray Lankester, the retiring president, will vacate the chair, and Sir David Gill, K.C.B., F.R.S., assume the presidency and deliver his inaugural address. On Friday, August 2, a discourse on "The Arc and Spark in Radio-telegraphy" is to be delivered by Mr. W. Duddell in the same building, and on Monday, August 5, Dr. F. A. Dixey will discourse on "Recent Developments in the Theory of Mimicry" in the Temperance Hall. A lecture to the operative classes will be given on Saturday, August 3, also in the Temperance Hall, by Prof. H. A. Miers, F.R.S., on "The Growth of a Crystal."

Excursions are being arranged to Belvoir Castle, the seat of the Duke of Rutland; Chatsworth, the Duke of Devonshire's Midland home; Haddon Hall, and to Peterborough Cathedral, with an invitation to tea in the Palace grounds from the Bishop. In addition to a general excursion to the Charnwood Forest, there will be a special one both there and to the district of Belvoir for geologists, whilst the botanical section is also planning walks in the same district.

An interesting trip will be that over the Leicester and Swannington railway now forming part of the Midland Railway system. This is one of the earliest railways in the kingdom, and the honoured names of George and Robert Stephenson are closely associated with it. Opened for traffic in 1832, the first object of this railway was the provision of a cheap supply of coal from the district it tapped to Leicester, and there is no doubt its formation greatly influenced the prosperity of the town. From the West Bridge Station, Leicester, the line enters the Glenfield Tunnel, which is 1796 yards long, cut straight and level, 14ft. high, 12ft. 6in. wide, and built of 18in. brickwork. On the opening day a special train conveying the directors left Leicester for Bagworth. In entering the tunnel referred to the chimney of the engine, *The Comet*, was knocked down, with the result that the passengers travelled to the Glenfield end through thick smoke and dust. The train was stopped at the Glenfield Brook to permit of a general washing of faces and hands. At Bagworth an incline of 1 in 29 was originally worked by a rope 1000 yards long, 5 inches circumference, the full wagons of coal pulling up the empties. The Swannington incline, 1 in 17, has since 1833 been worked by a fixed winding engine and rope. The original engine, one of the first to be fitted with a piston-valve, is still in use. From the commencement, three passenger trains ran daily from the West Bridge Station, Leicester, and these still continue to be run, to almost the original times. It was owing to a collision at this station between an engine and a country cart, and the consequent smashing of a lot of eggs, that the engine whistle was invented for the purpose of sounding warnings. The chief boot and shoe and hosiery works in the town are to be visited, as well as the works of the water and gas and electric lighting undertakings

of the Corporation. The principal Council schools will also be open for inspection.

Sectional meetings will be held on four or five days of the meeting at carefully chosen centres. The presidents of the various sections are as follows:—A (Mathematical and Physical Science), Prof. A. E. H. Love, F.R.S.; B (Chemistry), Prof. A. Smithells, F.R.S.; C (Geology), Prof. J. W. Gregory, F.R.S.; D (Zoology), Dr. W. E. Hoyle; E (Geography), Mr. G. G. Chisholm; F (Economic Science and Statistics), Prof. W. J. Ashley; G (Engineering), Prof. S. P. Thompson, F.R.S.; H (Anthropology), Mr. D. G. Hogarth; I (Physiology), Dr. A. D. Waller, F.R.S.; K (Botany), Prof. J. B. Farmer, F.R.S.; L (Educational Science), Sir Philip Magnus, M.P.

Every care is being taken in order to ensure the comfort and convenience of all attending the various meetings, and when the arrangements are completed it is anticipated that the accommodation generally will compare most favourably with that provided elsewhere. The various local secretaries are enthusiastically working with headquarters in the endeavour to make the Leicester meeting one to be long remembered for real usefulness and importance. The ladies of the town have formed a special hospitality committee, and are working to make, as they hope, ample provision for the large number of expected guests.

THE ASWAN RESERVOIR.

THE Egyptian Government has lost no time in arranging for the archaeological survey of that portion of the Nile Valley which will be submerged by the Aswan reservoir when the dam has been raised seven metres above its present height.

The archaeology of Nubia has not so far been very thoroughly studied, so that a comprehensive scheme of work must include:—(1) The consolidation of the foundations of ancient structures; (2) such repairs as are necessary to ensure their safety; (3) the copying of all inscriptions, and a complete photographic record of these buildings; (4) complete plans of each building, showing all structural details; (5) systematic excavation, together with the preparation of plans and photographs of all ancient sites, cemeteries, &c., which will be damaged by the increased level of the reservoir; (6) a complete topographical survey of the valley, which will also indicate all sites, buildings, &c., of archaeological interest.

Under the arrangements which have been made by Sir William Garstin, G.C.M.G., Adviser of the Ministry of Public Works, the first three of these will be carried out by the Department of Antiquities; the last three sections, which constitute a survey, both topographical and archaeological, will be carried out by the Egyptian Survey Department.

As the dam in its present condition admits of the water-level being raised 15 metres if necessary, the investigation of the area which would be affected by this will be undertaken at once, and preparations have been made to commence work in the early autumn of this year.

The recent cadastral survey of Nubia, 1:2500 reduced to the scale of 1:5000, will be utilised as the basis of the topographical survey in order to record the position of all ancient settlements, cemeteries, and structures as they are taken in hand, while the slopes of the valley will be surveyed and contoured.

The Egyptian Government has secured the services of Dr. G. Reisner, who will commence the systematic excavation of ancient sites at the end of September next at the southern limit of the area now submerged. From this point work will be carried on southwards so as thoroughly to examine the valley floor on either

bank up to the future level of the reservoir (113 metres above sea-level), and as much above that as may be necessary on account of the water soaking the ground for some distance above it.

The Egyptian Government has included in the estimates for raising the dam a sum of 60,000*l.* for this work, which should suffice both for a thoroughly scientific study of the reach which is to be submerged, and for the necessary work of consolidating the foundations of temples. Facilities will be given to any archaeological institutions which may wish to undertake the study of any site, and will thus facilitate the work. All other parts which have not been systematically explored by such institutions will be examined in due course by Dr. Reisner and his staff, and the results will be published so as to form a complete archaeological record of this reach of the river.

PROF. ALFRED NEWTON, F.R.S.

WHILE zoological, and more especially ornithological, science has been deprived of one of its most illustrious students and exponents by the death of Alfred Newton, Cambridge has sustained an even more severe blow, both scientifically and socially. For not only has she lost in the late occupant of the chair of zoology a distinguished professor and working zoologist, and a great benefactor to her zoological museum, but likewise a social figure, whose place can never be exactly filled. For the past forty years or so the informal receptions held in term-time by Newton on Sunday evenings at his well-known rooms in Magdalene formed a unique feature in the scientific life of the university. To these gatherings not only were resident zoologists and the more advanced scientific students from all the colleges in Cambridge constant and welcome visitors, but older *alumni* re-visiting their *alma mater*, as well as zoologists educated at other seats of learning, were received and greeted by their host in that genial manner peculiarly his own. Reunions such as these must, unhappily, die with the man to whom they were due; but those in the smoky atmosphere of the old rooms at Magdalene will linger long in the memories of all the kindly old professor's former pupils and friends.

Born in Geneva on June 11, 1829, Alfred Newton belonged to an old East Anglian family, being the fifth son of William Newton, of Elveden, Suffolk, sometime M.P. for Ipswich, by Elizabeth, daughter of R. S. Milnes, of Fryston, Yorkshire, who represented his county town in Parliament. As a boy he was educated privately, but in due course he entered Magdalene College, Cambridge, as an undergraduate, and took his B.A. degree in 1853. In that year, as well as in 1852, he gained the English essay prize at Cambridge; and in 1854 he was elected to a travelling fellowship at his college, which he held until 1863. During the time that he held the travelling fellowship, Newton visited Lapland, Iceland, the West Indies, and North America, while in 1864 he accompanied Sir (then Mr.) Edward Birkbeck to Spitsbergen, then but little known zoologically. To these travels may in all probability be attributed a large proportion of his unrivalled knowledge of the distribution and habits of European birds. At a later period, during a visit to Heligoland, Newton sustained an injury in landing from a boat, which seriously increased a lameness due, we believe, to an accident in childhood. Ornithological observations were, however, continued for many years subsequently during summer yachting cruises, undertaken in com-